

Fragments in each of these five pools were then re-amplified using primers containing the bacteriophage T7 RNA polymerase promoter element, again using a different set of primers for each cDNA pool. cDNA generation and PCR reactions were performed using the Superscript^{SUPERSCRIPT™} Choice cDNA system and Platinum Taq High Fidelity Polymerase (both from Invitrogen, Carlsbad, CA), according to manufacturers protocols and recommendations.

Please amend the Abstract as follows:

ABSTRACT OF THE DISCLOSURE

Disclosed herein are methods and compositions for targeted cleavage of a genomic sequence, targeted alteration of a genomic sequence, and targeted recombination between a genomic region and an exogenous polynucleotide homologous to the genomic region.

The compositions include fusion proteins comprising a cleavage domain (or cleavage half domain) and an engineered zinc finger domain, as well as polynucleotides encoding same. Fusion proteins comprising cleavage half domains are used in pairs, to reconstitute a functional cleavage domain. In these fusion proteins, the zinc finger domain can be N terminal to the cleavage half domain, or the cleavage half domain can be N terminal to the zinc finger domain. The availability of fusion endonucleases having these different polarities allows targeting (and thereby binding) of zinc finger endonucleases either to opposite strands of the DNA target or to the same strand of the DNA target, thereby increasing the number of possible sequences which can be targeted and cleaved by the fusion proteins.